

From the

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Top Myths About Replacement Windows

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With commercials promising energy efficiency, ease of maintenance and added value to one's home, you would be a fool not to rip out those old, leaky, non-green windows. But before throwing out your original windows, consider the following facts about replacement windows. You may change your mind about replacing your historic windows.

Myth #1: "Replacement windows are more energy efficient and will pay for themselves."

Energy efficiency is probably the main sales pitch for replacing windows (and an appealing one, with utility companies gleefully surcharging for fuel costs). This is something of a "yes, but" statement, however. Double-pane windows work well against heat loss but not so well against heat gain, which is the primary problem in Louisiana, where winter lasts around three weeks and summer stretches out to nine months.

For heat gain, not much works past blocking light. Even E-glass and double panes will allow around 78 percent of radiant energy (heat) inside. The best solution is not to permanently close in windows (remember those horrible 1970s renovations?), but to do as our ancestors did and interact with your house. Simple blinds can do as much to block radiant heat as double panes and E-glass – just draw them down during the day. If you have shutters, use them the same way; they have a much broader use than just storm protection. Solar film applied to glass can work as well as E-glass. And if you really want to keep the heat out, light-colored curtains that fit snugly inside your windows will keep almost all of the heat outside where you want it.

The main culprit of heat loss in historic windows is air infiltration. Double-sash windows leak most where the two sashes meet and where the bottom sash meets the sill. Bronze spring weather stripping at these points will minimize this. Periodically renewing the glazing putty holding in the glass is also important, and an easy do-it-yourself project. And just as blinds can block radiant heat during the day, they can also create an air space that works like the air cavity in double pane windows. With these measures, historic windows perform as



Restored original windows, like those shown in the house above, enhance the beauty of your home and will add to its resale value. Inappropriate windows, like those shown on the right, detract from the historic character of the house and can cause future damage to the building.

well as most replacement windows, at a considerably lower cost than buying new units. (See Website list below for more information).

As for payback, most statistics are for heat loss, not heat gain. Once air infiltration issues have been remedied, the percentage of heat loss through windows is only around 12.5 percent. This is a small return for a large investment to remedy something that is an issue only about three months of the year in Louisiana. Most replacement windows' payback periods are often nowhere near manufacturers' claims – the payback period of all but the cheapest systems is usually longer than the windows will last.

Myth #2: "Replacement windows are the 'green' solution."

The greenest building is the one that already exists, because of its embodied

energy, defined by sustainability experts Sedovic and Gotthelf as "...the sum of the energy required to extract raw materials, manufacture, transport and install building products." It follows, then, that the greenest window is the one already in place. Repairing historic windows not only conserves their embodied energy, it saves the energy spent manufacturing and transporting replacement windows. Materials found in most replacement windows (PVC, aluminum and glass) have among the highest levels of embodied energy of all. The manufacture of PVC and aluminum also creates a number of toxic byproducts. And while aluminum and glass can be recycled, this is not an option with PVC, silicone and other materials found in replacement windows, so these materials will stay in our landfills long after their useful life ends.

Myth #3: "Replacement windows are lower maintenance."

Typical replacement windows are lower maintenance because ... they really can't be maintained. When one piece breaks, the entire unit must be replaced, like throwing out an old sneaker. Replacement windows are among the most

Historic windows were designed for easy repair as they can be partially or totally dismantled to allow replacement of individual pieces. The most dilapidated historic window can be refurbished for around \$500 (and most historic windows are in far better shape than you think), far less than any replacement of equivalent quality. And most repairs can be a do-it-yourself project for the handy homeowners.

Myth #5: "Replacement windows will last as long as historic windows."

All but the most expensive, custom-made modern windows will be made of materials far inferior to the cypress or long leaf pine typically used in historic windows. The only comparable woods available today are mahogany, Spanish cedar or reclaimed cypress, and none are inexpensive. Historic windows use dovetails and mortises rather than finger joints, which allow for the expansion and contraction inevitable in our water-saturated climate. Finally, the PVC that makes up the bulk of replacement windows degrades in sunlight, giving most vinyl windows a 10-15 year lifespan; the sealants will break down sooner. The windows in your house may have lasted for more than 100 years for a reason: they are better!

Myth #6: "Replacement windows don't leak."

Replacement windows are usually stapled directly into existing frames, shimmed and caulked to fit. Often they're the wrong size for the frame—a disaster waiting to happen. Between movement (all houses move), and settlement, and the skill (or lack thereof) of the installer, there will be gaps around these new windows. These gaps will allow water to seep behind walls, allowing mold to grow and termites to make a feast of the framing.

The primary appeal of owning an old house is aesthetics and fine workmanship, both of which are exemplified in historic windows but are lacking in vinyl windows. What you already possess is the best asset you could have for the

investment you call home. Why change something valuable and long-lasting for something cheap and disposable?



Photo by James Crouch

Myth #4: "Historic windows are too expensive to repair."

For further reading and research about historic windows, including care and maintenance, consult the following:

Gibney, David. "Restoring Window Sashes," *Fine Homebuilding*, March 2004. <http://www.taunton.com/finehomebuilding/how-to/articles/restoring-window-sashes.aspx>

Myers, John H. "Preservation Brief 9: The Repair of Historic Wood Windows." Technical Preservation Services, National Park Service, 1981. <http://www.nps.gov/hps/tps/briefs/brief09.htm>

Sedovic, Walter and Gotthelf, Jill H. "What Replacement Windows Can't Replace: The Real Cost of Removing Historic Windows," *APT Bulletin: Journal of Preservation and Technology*, 36:4, 2005

http://www.state.il.us/hpa/PS/images/replacement_windows.pdf